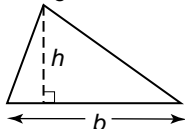


## Study Guide

Student Edition  
Pages 535–541**Area of Triangles, Rhombi, and Trapezoids**

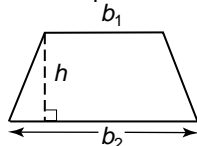
Formulas for the areas of triangles, trapezoids, and rhombi can be obtained from the formula for the area of a parallelogram.

triangle



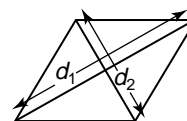
$$A = \frac{1}{2}bh$$

trapezoid



$$A = \frac{1}{2}h(b_1 + b_2)$$

rhombus



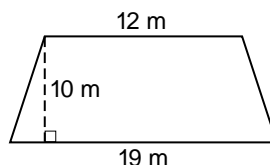
$$A = \frac{1}{2}d_1d_2$$

**Example:** Find the area of the trapezoid.

$$A = \frac{1}{2}h(b_1 + b_2)$$

$$A = \frac{1}{2}(10)(12 + 19)$$

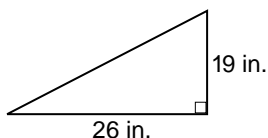
$$A = 155$$



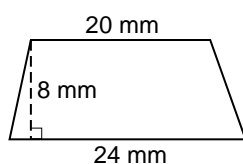
The area is 155 square meters

**Find the area of each figure.**

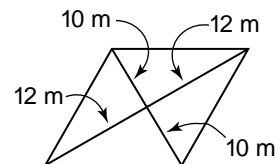
1.



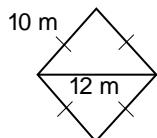
2.



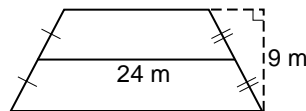
3.



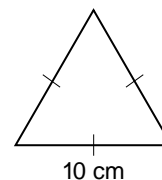
4.



5.



6.



7. The area of a triangle is 150 square inches. If the height is 20 inches, find the length of the base.

8. A rhombus has a perimeter of 100 meters and a diagonal 30 meters long. Find the area of the rhombus.